IN THE CLAIMS

Although no claims are amended, Applicant includes here below a full set of claims for the convenience of the Examiner:

1. (Previously Presented) An implantable lead assembly comprising:

a lead body extending from a proximal end to a distal end having an intermediate portion therebetween, wherein the lead body includes an insulating layer;

a conductor disposed within the insulating layer, wherein the insulating layer surrounds the conductor;

an electrode coupled to the lead body, wherein the electrode is in electrical communication with the conductor;

at least one conductive sleeve disposed within the insulating layer, the at least one conductive sleeve surrounds the conductor and extends continuously along the conductor from the proximal end to at least the intermediate portion, wherein the at least one conductive sleeve is electrically isolated from all sensing and therapy electrodes and all sensing and therapy conductors including the electrode and the conductor, the at least one conductive sleeve has a first impedance value in a first condition, and the at least one conductive sleeve is adapted for electrical isolation from a lead body exterior environment in the first condition.

2. (Previously Presented) The implantable lead assembly of claim 1, wherein the at least one conductive sleeve is adapted for exposure to a lead body exterior environment in a second condition and the at least one conductive sleeve has a second impedance value, where the second impedance value is within a predetermined range.

3. (Previously Presented) The implantable lead assembly of claim 2, wherein an opening extends from an outer surface of the insulating layer to the at least one conductive sleeve to expose the at least one conductive sleeve to the lead body exterior environment.

4. (Original) The implantable lead assembly of claim 1, wherein the at least one conductive sleeve extends through the lead body, and the at least one conductive sleeve is substantially aligned with a lead body longitudinal axis.

5. (Original) The implantable lead assembly of claim 1, further comprising:

a second conductive sleeve disposed within the insulating layer, wherein the second conductive sleeve is electrically isolated from the electrode.

6. (Original) The implantable lead assembly of claim 5, wherein the second conductive sleeve surrounds the conductor and the at least one conductive sleeve.

7. (Original) The implantable lead assembly of claim 6, wherein the insulating layer includes a first portion, a second portion, and a third portion, the at least one conductive sleeve is interposed between the first portion and the second portion, and the second conductive sleeve is interposed between the second portion and the third portion, the third portion surrounds the second conductive sleeve.

8. (Original) The implantable lead assembly of claim 5, further comprising:

a second conductor, the second conductor disposed within the insulating layer, wherein the second conductive sleeve surrounds the second conductor.

9. (Original) The implantable lead assembly of claim 1, further comprising:

a pulse generator coupled with the implantable lead assembly, wherein the pulse generator is in electrical communication with the at least one conductive sleeve.

10. (Original) The implantable lead assembly of claim 9, further comprising:

a monitoring unit coupled with the implantable lead assembly, wherein the monitoring unit is in electrical communication with the at least one conductive sleeve.

11. (Previously Presented) An implantable lead assembly comprising:

a lead body extending from a proximal end to a distal end having an intermediate portion therebetween, wherein the lead body includes an insulating layer;

a conductor disposed within the insulating layer, wherein the insulating layer surrounds the conductor;

an electrode coupled to the lead body, wherein the electrode is in electrical communication with the conductor; and

means for detecting wear of the insulating layer before the conductor is exposed to a lead body exterior environment, wherein the means for detecting wear is disposed within the insulating layer.

12. (Original) The implantable lead assembly of claim 11, wherein the means for detecting wear of the insulating layer includes a conductive sleeve disposed within the insulating layer.

13. (Previously Presented) The implantable lead assembly of claim 11, wherein the means for detecting wear of the insulating layer is adapted for exposure with the lead body exterior environment.

14. (Withdrawn) A method comprising:

measuring a first impedance of an at least one conductive sleeve at a first time in an implantable lead assembly, the implantable lead assembly including a lead body having a conductor disposed therein, an electrode coupled to the lead body and in electrical communication with the conductor, an insulating layer surrounds the conductor, and the at least one conductive sleeve is disposed within the insulating layer and surrounds the conductor;

measuring a second impedance of the at least one conductive sleeve at a second time; and

sending a signal if the second impedance is within a predetermined range.

15. (Withdrawn) The method of claim 14, further comprising:

comparing the first impedance with the second impedance.

16. (Withdrawn) The method of claim 14, further comprising:

wearing away the insulating layer during an intermediate period between the first time and the second time.

17. (Withdrawn) The method of claim 14, further comprising:

coupling the implantable lead assembly to a pulse generator, wherein the pulse generator is in electrical communication with the at least one conductive sleeve.

18. (Withdrawn) The method of claim 17, wherein measuring the first impedance and measuring the second impedance are performed by the pulse generator.

19. (Withdrawn) The method of claim 17, further comprising:

storing the impedance measurements within the pulse generator.

20. (Withdrawn) The method of claim 14, further comprising:

coupling a monitoring unit to a terminal disposed on the lead body wherein the monitoring unit is in electrical communication with the at least one conductive sleeve.

21. (Withdrawn) The method of claim 20, wherein measuring the first impedance and measuring the second impedance are performed by the monitoring unit.

22. (Withdrawn) The method of claim 14, wherein measuring the first impedance and measuring the second impedance includes measuring impedance at preprogrammed times.

23. (Withdrawn) The method of claim 14, wherein measuring the first impedance and measuring the second impedance are performed intermittently.

24. (Previously Presented) An implantable lead assembly comprising:

a lead body extending from a proximal end to a distal end having an intermediate portion therebetween, the lead body including a lead body exterior, and the lead body includes an insulating layer;

a conductor disposed within the insulating layer, wherein the insulating layer surrounds the conductor;

an electrode coupled to the lead body, wherein the electrode is in electrical communication with the conductor; and

at least one conductive sleeve interposed between the lead body exterior and the conductor, the at least one conductive sleeve at least partially surrounds the conductor, the at least one conductive sleeve continuously extends along the conductor from the proximal end to at least the intermediate portion, wherein the at least one conductive sleeve is electrically isolated from all sensing and therapy electrodes and conductors including the electrode and the conductor, the at least one conductive sleeve has a first impedance value in a first condition, and the at least one conductive sleeve is electrically isolated from a lead body exterior environment in the first condition.

25. (Canceled)

26. (Previously Presented) The implantable lead assembly of claim 24, and the at least one conductive sleeve substantially surrounds the conductor.

27. (Previously Presented) The implantable lead assembly of claim 24, and wherein when the at least one conductive sleeve is exposed to a lead body exterior environment in a second condition the at least one conductive sleeve has a second impedance value, where the second impedance value is within a predetermined range.

28. (Previously Presented) The implantable lead assembly of claim 24, and the at least one conductive sleeve extends through the lead body, and the at least one conductive sleeve is substantially aligned with a lead body longitudinal axis.

29. (Previously Presented) The implantable lead assembly of claim 24, further comprising a second conductive sleeve disposed within the insulating layer, wherein the second conductive sleeve is electrically isolated from the electrode.

30. (Previously Presented) The implantable lead assembly of claim 29, wherein the second conductive sleeve surrounds the conductor and the at least one conductive sleeve.

31. (Previously Presented) The implantable lead assembly of claim 29, further comprising a second conductor, the second conductor disposed within the insulating layer, and the second conductive sleeve surrounds the second conductor.

32. (Previously Presented) The implantable lead assembly of claim 24, further comprising a pulse generator coupled with the implantable lead assembly, and the pulse generator is in electrical communication with the at least one conductive sleeve.

33. (Previously Presented) The implantable lead assembly of claim 32, further comprising a monitoring unit coupled with the implantable lead assembly, and the monitoring unit is in electrical communication with the at least one conductive sleeve.

34. (Previously Presented) The implantable lead assembly of claim 1, in a first non-breached condition where the conductive sleeve is electrically isolated from a lead body exterior environment by the insulating layer a first impedance measurement across the conductive sleeve and the lead body exterior environment has the first impedance value, and in a second breached condition where the conductive sleeve is exposed to the lead body exterior environment a second impedance measurement across the conductive sleeve and the lead body exterior environment has a second lower impedance value.

35. (Previously Presented) The implantable lead assembly of claim 1, the conductive sleeve including a conductive sleeve connector sized and shaped for connection with an impedance monitoring device.

36. (Previously Presented) The implantable lead assembly of claim 11 further comprising a connector sized and shaped for connecting the means for detecting wear of the insulating layer with an impedance monitoring device.

37. (Previously Presented) The implantable lead assembly of claim 24 further comprising a conductive sleeve connector sized and shaped for connection with an impedance monitoring device.

38. (Previously Presented) The implantable lead assembly of claim 24, the at least one conductive sleeve includes a plurality of discrete conductive elements.